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the dry well 231 from the water injection pipe 235. By flooding the dry well surrounding the reactor pressure vessel, the molten fuel will be cooled through the pressure vessel wall and damage to the lower boundary region of the nuclear reactor pressure vessel 201 can be prevented.

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Q¹¹
In other words, heat exchange is performed by constructing the walls of the pressure containment vessel 401 in a ship hull-type dual-steel-plate structure, and circulating cooling water via natural circulation inside these walls 402 having a dual-steel-plate structure, in order to cool the outer side of the pressure containment vessel 401. Furthermore, since the lower dry well 231 and the pressure suppression pool 404 are connected by means of a coupling pipe 430 at two points of different connection height, an upper point through which heated water from the dry well will flow and lower point through which cooler water from the pressure suppression pool will flow as shown in Fig. 10A and 11, then a thermal convection flow is created between the dry well 231 and the pressure suppression pool 404, and hence effective cooling can be performed.

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Q¹²
If a severe accident occurs and there is a melt down of the reactor core 202, the molten core material falling down from the lower portion of the nuclear reactor pressure vessel 201 to the base portion of the dry well 231 will raise the temperature in the dry well 231. As the temperature in the dry well 231 rises, the temperature of the low-melting-point metal 442 forming the seal means rises until the metal melts. By so doing, water will be discharged into the base portion of the dry well 231 under the force of gravity from the pressure suppression pool 404, thereby cooling the molten core material and hence enabling the molten material to be sealed and held inside the pressure containment vessel 401. Moreover, by means of water flowing in the coupling pipe 441, initiation of this water discharge, and thus the presence of the reactor core in the dry well, can be detected by the differential pressure meter 443.

In the Claims:

Please cancel claim 1.

2. (Amended) The boiling water reactor nuclear power plant according to claim 15, wherein said pressure suppression pool being connected to said nuclear reactor pressure vessel by means of gravity-based piping through which the cooling water drops by gravity.
3. (Amended) The boiling water reactor nuclear power plant according to claim 15, wherein a piping and nozzles connected to said nuclear reactor pressure vessel are positioned above said reactor core.
4. (Amended) The boiling water reactor nuclear power plant according to claim 15, wherein a valve which can be opened to an exterior of said reactor core shroud is provided at a position above said fuel assembly.
5. (Amended) The boiling water reactor nuclear power plant according to claim 15, wherein the multiple steel plates are mutually opposing in a separated fashion through the ribs.
6. (Amended) The boiling water reactor nuclear power plant according to claim 15, wherein said pressure suppression pool and a lower portion of the dry well are connected by means of a plurality of emergency opening passages at different elevational positions.
7. (Amended) The boiling water reactor nuclear power plant according to claim 5, wherein a normal use cooling system is connected to the inner hollow structure of the reactor containment vessel wall.
8. (Amended) The boiling water reactor nuclear power plant according to claim 15, wherein a normally-closed water discharge pipe is led from said pressure suppression pool into said dry well at the base region of said nuclear reactor pressure vessel, and said water discharge pipe is normally closed by a sealing device, the sealing device capable of being released in case of emergency so as to open said water discharge pipe.
9. (Amended) The boiling water reactor nuclear power plant according to claim 15, wherein a heat pipe capable of exchanging heat is provided at a portion between said

pressure suppression pool and the lower region of said dry well.

10. (Amended) The boiling water reactor nuclear power plant according to claim 15, wherein a guard pipe is provided so as to extend from said dry well section to said pressure suppression pool, and valves and piping led from said nuclear reactor pressure vessel are accommodated in said guard pipe.

11. (Amended) The boiling water reactor nuclear power plant according to claim 15, wherein a turbine system is installed on an upper portion of the reactor building.

12. (Amended) The boiling water reactor nuclear power plant according to claim 15, wherein an extraction space capable of accommodating said nuclear reactor pressure vessel is provided above the nuclear reactor pressure vessel in the reactor building.

13. (Amended) The boiling water reactor nuclear power plant according to claim 15, wherein said reactor building is positioned on a foundation base having an anti-seismic structure.

Please add the following new claims:

--15. (New) A boiling water reactor nuclear power plant, in which a cooling water is circulated, in an installed state comprising:

a reactor building;

a reactor containment vessel positioned in the reactor building, the reactor containment vessel having an inner wall defining an inside of the reactor containment vessel and an outer wall defining an exterior of the reactor containment vessel, wherein the inner wall and the outer wall are made from multiple steel plates;

a reactor pressure vessel disposed inside the reactor containment vessel;

a dry well defined by a portion of the inside the reactor containment vessel;

a pressure suppression pool provided outside the inner wall and inside the outer wall of the reactor containment vessel, a wall of the pressure suppression pool being formed by a portion of the inner wall of the reactor containment vessel;

a reactor containment vessel cooling system pool positioned in the reactor building and disposed above the suppression pool;

a reactor core mounted with fuel assemblies supported by a reactor core support plate and an upper grid plate provided in an inner base portion of the reactor pressure vessel, at least a portion of said reactor core being disposed below said pressure suppression pool;

a reactor core shroud surrounding the reactor core and the upper grid plate; control rod guide tubes positioned in the reactor core shroud and over the upper grid plate;

control rods inserted in the control rod guide tubes; and

control rod drive mechanisms for inserting and withdrawing the control rods from an upper portion of the reactor core, said control rod drive mechanisms being arranged at a portion above the control rod guide tubes and inside the reactor core shroud,

wherein said reactor containment vessel inner wall and outer wall comprise a double-wall structure forming an inner hollow structure over at least a portion of the reactor containment vessel, and wherein the inner hollow structure is provided with a plurality of ribs and the inner hollow structure is in fluidic communication with the reactor containment vessel cooling system pool so that a cooling water therein flows and circulates in the inner hollow structure of the reactor containment vessel to cool the dry well.

16. (New) A reactor containment vessel for use with a boiling water nuclear reactor having a reactor containment vessel cooling system providing cooling water, comprising:

an inner wall made from multiple steel plates defining an inside of the reactor containment vessel;

an outer wall made from multiple steel plates, wherein the inner wall and the outer wall are positioned to form a double-wall structure forming an inner hollow structure over at least a portion of the reactor containment vessel;

a plurality of ribs provided within the inner hollow structure and coupled to either or both of the inner wall and the outer wall and;

a fluidic connection to the reactor containment vessel cooling system configured so that cooling water from the reactor containment vessel cooling system can flow and circulate in the inner hollow structure to effectively cool a portion of the inside of the reactor containment vessel. --